**Activity title: Group dynamics. NASA astronaut**

**Short description:**

Students will learn to deal with the group dynamics of job selection trials and be able to practise their communication and leadership skills.

**Key competences in life skills:**

|  |  |
| --- | --- |
| **Numeracy** |  |
| **Literacy and communication** | ✓ |
| **ICT** |  |
| **Interpersonal** | ✓ |
| **Use of foreign languages** |  |
| **Entrepreneurship** |  |
| **Job seeking** | ✓ |
| **Learning to learn** | ✓ |

**Situation:**

The student has applied for a job and has been selected to participate in the selection trials. One of the trials is group activity. Together with other candidates the student will have to confront a difficult situation. Students will be observed to see how they perform as part of a team.

**Aims and objectives:**

* Understand how a group selection trial works (what it is, what it’s like and why it’s like it is).
* Practise communication and leadership skills.
* Learn from mistakes and design a personal improvement strategy.

**Detailed Description:**

* **The preparation:**

The teacher divides the students into groups of a maximum of five (if the teacher knows the students he/she can ensure that there are students with very different types of communication skills in each group) and provides each one with the information sheet for the exercise (Appendix 1 and 3).

* **The session:**

The teacher presents the activity as a problem that the group as a whole has to solve and explains to them that he/she is simply an observer or non-participant. He/she stresses that the main aim is to reach a consensus decision (voting may not be used to reach decisions).

**PHASE 1.** Students receive the information sheet (see appendices 1 and 3) on which they will record their initial decision (in column I).

**PHASE 2.** After ten minutes they divide themselves into groups of five (or the teacher divides them into groups) and they receive Appendix 2 which is subsequently read to them.

**PHASE 3.** Each group attempts to arrive at a joint solution which they record in column G of Appendix 3. They will have to use their communication and negotiation skills to successfully complete the task. They will be given a maximum of 45 minutes.

The teacher acts as an observer during this phase and takes note of the roles and attitudes students adopt (leader, follower, onlooker, helper etc.) and the ideas that could be useful when evaluating the activity and assisting students to improve their communication skills.

**PHASE 4.** The teacher reads Appendix 4 aloud (the NASA solution) and students complete column N of Appendix 3 using this information. Once this has been completed the teacher informs students of his/her observations and conclusions.

**Requirements and Resources:**

Each student must have a copy of information sheets Appendix 1, 2 and 3; the teacher issues students with these sheets in the course of the activity. The teacher has a copy of Appendix 4.

The activity should be conducted in a classroom with a table and chairs arranged appropriately for debate and discussion.

A board and a flip chart are also required to display the final results.

**Assessment:**

Teacher and students will share their observations to arrive at a final assessment of the activity.

The assessment will focus on roles and positive and negative attitudes adopted in this type of group activity. Teacher and students will pool their ideas to compile a List of best practices to assist students in achieving success in these types of selection trials. The results obtained in column I-G of Appendix 3 will be extremely useful in compiling the list.

Students will complete a personal assessment at the end of the activity and use the results to design a strategy to improve their communication skills.

To finalise the conclusion, students will enter individual and group results in the remaining columns in the Appendix 3:

* I-G: the difference between the group and individual decisions expressed in absolute terms. This will enable students to see that consensus decision-making normally produces better results than individual decision-making.
* G-N: the difference between the group decision and the one provided by the expert from NASA expressed in absolute terms. This will enable students to see exactly how much expertise the group has in this activity.
* I-N: the difference between the individual decision and the one provided by the expert from NASA expressed in absolute terms. This will enable students to see that whilst they may be extremely familiar with a subject and able to apply their knowledge in a logical way they are unable to convince the group of the soundness of their point of view; many potentially good ideas are lost this way.

**Hints and tips:**

The teacher should concentrate on identifying attitudes and conduct that facilitate communication and those that impede it during the observation phase.

We shouldn’t forget the objectives of a recruitment company when it sets up a group dynamics activity. The objectives aren’t always the same: they might be looking for a person with leadership qualities or someone with more of a team player profile. Whatever the profile the company seeks they will always be testing candidates’ communication skills and their ability to work as part of a group.

In addition to the above, this activity enables students to draw conclusions about working as part of a group (the improvement of results when working in a group as opposed to working individually, the slowness of decision-making in groups compared to decision-making as an individual etc.) by seeking explanations for the results obtained in columns G-N and I-N.

**Commentary:**

The activity can be videoed (with students’ consent) to enhance feedback. Adapted from NASA [www.bostondebate.org/wp-content/uploads/.../NASA-Exercise.pptx](http://www.bostondebate.org/wp-content/uploads/.../NASA-Exercise.pptx) for explanation of answers

**Appendix 1**

**Instructions for the NASA Exercise.**

**Individual Instructions**

The five of you belong to a team of astronauts. Your mission was to link up with the mother ship on the light side of the moon. Due to technical difficulties your space ship had to land 300 kilometres from the mother ship.

Most of the supplies on board your spaceship were destroyed during the landing and your survival depends on reaching the mother ship.

You can only carry essential items with you to travel this distance; you will subsequently receive a list of fifteen items that have survived the landing.

Your task is to classify the items the crew will carry. Mark the most important item with a 1, the second most important with a 2 and so on until you have classified all the objects.

**Appendix 2**

**Group Instructions**

Once you have completed your own classification of the objects you are to get together with the rest of the group and arrive at a unanimous general classification. This means that you must decide the place that each object occupies by unanimous agreement. It is difficult to reach unanimous decisions because each individual has their own idea of what’s right. Even so, try and arrive at a list that everyone basically agrees with.

Remember that you must decide each item’s position with the consensus of the entire group:

Avoid imposing your list on the rest; present a logically argued case;

Avoid compromising just to reach an agreement or prevent arguments: only do so when others’ arguments seem more logical and sensible.

Avoid votes, majority decisions or pacts (if you scratch my back, I’ll scratch yours)

The aim is to find the best solution for everyone.

**Appendix 3**

**The list of Items**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Items** | **I** | **G** | **N** | **I-N** | **G-N** | **I-G** |
| A box of matches |  |  |  |  |  |  |
| Concentrated foods |  |  |  |  |  |  |
| 20 metres of nylon cord |  |  |  |  |  |  |
| 30 square metres of parachute silk |  |  |  |  |  |  |
| A gas stove |  |  |  |  |  |  |
| Two 7.65 mm pistols |  |  |  |  |  |  |
| Powdered milk |  |  |  |  |  |  |
| Two 50 litre oxygen tanks |  |  |  |  |  |  |
| A star chart |  |  |  |  |  |  |
| A pneumatic life raft with tanks of CO2 |  |  |  |  |  |  |
| A magnetic compass |  |  |  |  |  |  |
| 20 litres of water |  |  |  |  |  |  |
| Signal flares (suitable for lunar use) |  |  |  |  |  |  |
| First aid kit |  |  |  |  |  |  |
| A solar energy FM radio receiver |  |  |  |  |  |  |

**APPENDIX 4**

**The solution**

|  |  |  |
| --- | --- | --- |
| **Items** | **Nº** | **Explanation** |
| A box of matches | 15 | Completely useless-there’s no oxygen on the moon |
| Concentrated foods | 4 | Nutrition, necessary |
| 20 metres of nylon cord | 6 | Useful for climbing amongst other things |
| 30 square metres of parachute silk | 8 | Protection against solar rays |
| A gas stove | 13 | Only useful on the dark side of the moon |
| Two 7.65 mm pistols | 11 | They can be used for self-propulsion |
| Powdered milk | 12 | A secondary source of food; it has to be mixed with water. |
| Two 50 litre oxygen tanks | 1 | For breathing |
| A star chart | 3 | Very important for orientation |
| A pneumatic life raft with tanks of CO2 | 9 | The tanks are useful for self-propulsion |
| A magnetic compass | 14 | Doesn’t work on the moon; there don’t seem to be any magnetic poles |
| 20 litres of water | 2 | Supplement the organism’s fluid loss |
| Signal flares (suitable for lunar use) | 10 | Useful for when the mother ship is in sight |
| First aid kit | 7 | The pills and the injectable drugs are useful |
| A solar energy FM radio receiver | 5 | Useful for possible communication with the mother ship |